May 13, 1971

Dr. William Kruskal
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Dear Bill,

Another note on record linkage.

This has to do with mercury. I am sure I do not have to review the current fuss nor the economic impact of what we must do in the face of limited knowledge.

There are well defined cohorts with occupational exposure and a few geographic groups, like that in an area west of San Jose, whose health histories could give us an important statistical base for further policy. In principle a very easy way to do this would be by linking social security data on industry or location of employment with health vital statistics.

In fact, a local engineer by the name of Williston has been pressing me with the story that mercury miners have a remarkably low rate of cancer. He is probably unconsciously fudging his statistics but he says that there was only one case of cancer death during employment over 15,000 man years of exposure in the industry. He puts the average age at around 45 and says the one case he did dig up was a fellow who died of lung cancer within a year or two of entering the industry. He will have to give me better age statistics than he did but the expected incidence would have been between 10 and 20 for unbiased sample of U.S. white males. Some story like this may turn out to be true some day but we will never know if we do not have better ways of aggregating the data.

The new occupational health and safety act provides for research on occupational health and this might give an administratively feasible handle for statistical linkage procedures. I do believe that this is one of the most fertile possibilities for improving health information with implications far beyond the specific occupational exposures. These are often unintended experiments that can be very revealing about environmental factors that play, at lower intensity, on large parts of the population.

Sincerely yours,

Joshua Lederberg
Professor of Genetics

JL/rr